

## Things to Know, Understand, and Do CP Chapter 1: Matter and Measurement

*By the end of Chapter 1, you should*

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| <b>Know how to...</b>   |
| Define chemistry  |
| Give the defining points of matter  |
| Recognize the different states of matter (solid, liquid and gas) and give their characteristics |
| List commonly used physical properties of matter and substances                                 |
| Identify if properties are intensive or extensive   |
| Name the SI units for length, volume, time, mass, temperature, and density                      |
| Solve problems involving metric system conversions  |
| Perform calculations using dimensional analysis   |
| Set up a conversion factor  |
| Perform calculations involving density  |
|   |
| <b>Understand...</b>  |
| The laws of conservation of matter  |
| The difference between weight and mass  |
| How the SI system works   |
| How units cancel in a calculation   |
| The difference between <b>Accuracy</b> and <b>Precision</b>                                     |
| How mass and volume are linked through the Density of a substance                               |
| <b>THAT I MUST SHOW WORK IN EVERY<br/>CALCULATION OR I WILL NOT GET FULL CREDIT</b>             |

Chapter 1 Homework.

Due the day before the test. Must be completed neatly. Use full sentences and/or show all work in calculations for full credit where applicable. This assignment may be passed in anytime before the test though. Students may also elect to pass in questions in smaller chunks during the course of our coverage of the chapter if that is more conducive to their learning style.

Read Chapter 1 (p 2 – 21) and Appendix A-0 – A-1

Do the following problems:

pg 8 Q 2  
pg 12 Q 1, 4  
pg 16 Q 1, 2, 6, 7  
pg 20 Q 1, 3, 4, 5, 6